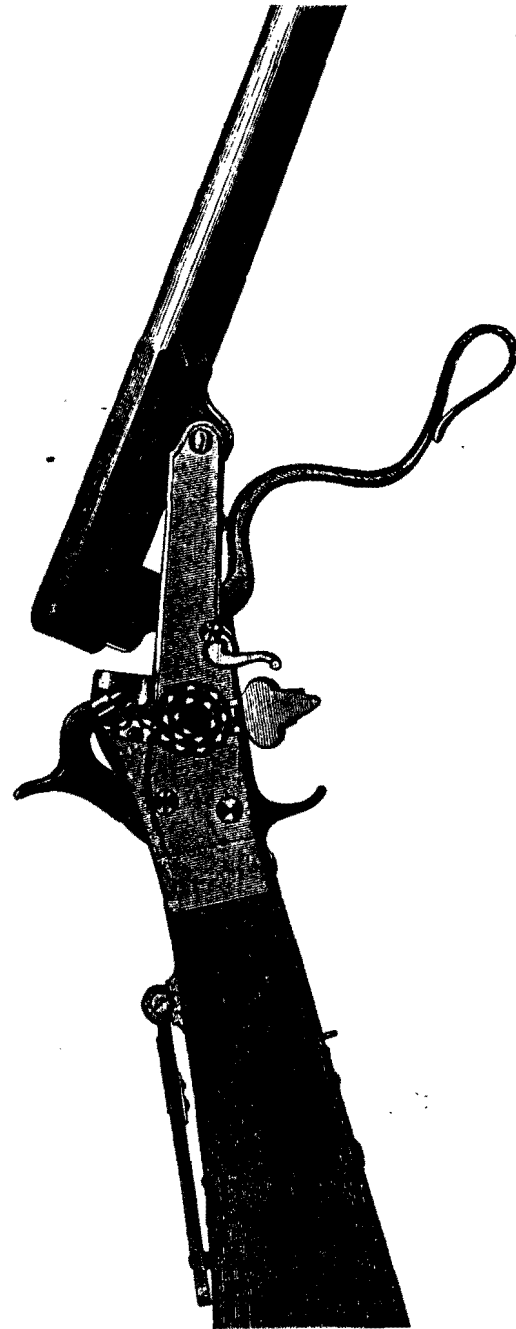

THE MAYNARD RIFLE.

G. S. GIBSON, Printer, 511 Ninth street, Washington.

MAYNARD RIFLE.—FIG. 2. *Showing Rifle in position to receive the cartridge, and with the magazine also opened, showing the primer.*



LIBRARY OF THE RARE BOOK

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MAYNARD RIFLE.—Fig. 1. Showing Rifle loaded, cocked, and with back sight raised.



MAYNARD RIFLE.—FIG. 3. *Section of loaded cartridge (full size)
used in the Maynard Rifle, 0.5 inch calibre.*

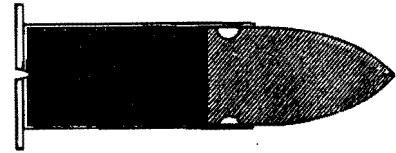
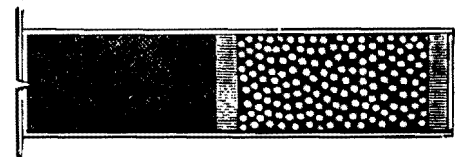


FIG. 4. *Showing the cartridge (full size) used with the
Maynard Shot Gun, 0.55 inch calibre.*



THE MAYNARD BREECH-LOADING AND SELF-PRIMING RIFLE, AND SHOT GUN.

The MAYNARD ARMS COMPANY, in offering their rifle to the public, deem it proper to say, for the information of those who have not had an opportunity of examining it, that it is the result of long-continued study and experiment, directed to removing the sources of error, inconvenience, inefficiency and danger of fire-arms, by Dr. EDWARD MAYNARD, of Washington, D. C., inventor of the "Maynard Primer," which has been adopted by the United States government for its army and navy, and which, by its beautiful simplicity and great utility, has elicited the highest praise from the most eminent military and naval authorities of America and Europe—has induced the King of Sweden to present its inventor with the "Great Medal of Merit," and the King of Prussia to confer upon him the order of "Chevalier of the Red Eagle." The Commanding General of the United States army, Lieut. General Scott, said of this Primer: "It is the greatest improvement in fire-arms made within a century;" and of this rifle, (which uses the Primer in a better way than it has been used in any other arm,) "it is the most beautiful piece of mechanism I ever saw. It seems to do all that is required of a military rifle, and to do it in the best possible manner."

Engineers, scientific and practical, are unanimous in their praise of this rifle, as being a most admirable example of the true arrangement of mechanism and distribution of material to secure the utmost degree of strength and durability within a certain weight. Artists pronounce its form the most beautiful ever given to a rifle, and practical gun-makers speak of it as the best studied rifle yet produced of the breech-loading order.

The peculiarities of this rifle, which, by giving it such uniformity, accuracy and power, distinguish it from others, have been so secured by Letters Patent as to justify the manufacture of the arm upon an extensive scale. Five thousand of these rifles are now being completed—a part to fill a Government order, and the remainder for sporting or military use, being adapted to both. These five thousand are being manufactured by the Massachusetts Arms Co. on the interchanging system, so that duplicate barrels or other parts may be ordered with a certainty of their fitting. The standard of workmanship is very high, and every piece of every rifle must pass through the hands, and receive the approval, in every respect, of the Company's Inspector, Mr. W. P. McFARLAND, whose ability to judge of material and workmanship in metal is probably not surpassed by that of any living mechanician.

At present only two sizes of calibre for bullets, and one for shot, are made for this arm. Two lengths of barrel are made—one twenty, the other twenty-six inches. With the twenty-inch barrel, the entire rifle weighs less than six pounds—a weight that any person may easily carry all day. The larger calibre, carrying about 20 bullets to the pound, is large enough for any game found in America. The smaller calibre carries a bullet large enough for deer-shooting. The shot-barrel uses the same sizes of shot as are used in ordinary double guns, and is preferable to those for shooting squirrels and such other game as may be quickly lost from view in the woods—the hunter being able to load this without losing sight of his object. As the barrel is readily separated from the stock, and the entire rifle may be packed in a space twenty inches long by six inches wide and about one inch deep, it may be carried by the traveller in his portmanteau, valise, or carpet-bag; thus, without any inconvenience, affording him the best means of amusement wherever he finds game, and of safety in times of danger, as it

works so simply, cleanly and easily, that any number of shots may be made at the rate of ten to fifteen per minute, depending upon the dexterity of the shooter.

The following extracts from letters received from persons who have used these arms, are presented as evidence that their advantages are such as are claimed for them, and well worthy the attention of those who would have a rifle or shot gun combining, within a convenient weight, the greatest beauty with the greatest facility, accuracy and force.

[From Hon. WM. CULLOM, formerly a Representative in Congress from the State of Tennessee, and late Clerk of the U. S. House of Representatives.]

WASHINGTON, April 29, 1858.

DEAR SIR: Having carefully examined the mechanism and principles of construction of Dr. Edward Maynard's breech-loading carbine, and witnessed its performances at long ranges, I have no hesitation in recommending it as a weapon of extraordinary merit. The simplicity and strength of its mechanism render it very little liable to get out of order, while its portability is such that, with all its accompaniments, including 200 rounds of ammunition, it is carried with facility in a small valise. In the rapidity with which it may be fired, its power of penetration, and accuracy at great distances, it surpasses any carbine that has come under my notice. I profess to be something of a judge of the rifle, having been trained to its use from early boyhood, and in my opinion most, if not all, the points that go to make a good rifle are found in Dr. Maynard's carbine.

The metallic water-proof cartridges are also a decided improvement over anything of the kind yet presented to the public, and I think can hardly fail to come into very general use for breech-loading arms.

Very respectfully, yours,
WM. CULLOM, of Tennessee.

To Judge JOSEPH BRYAN,
Washington, D. C.

[From the Washington Union of October 24, 1858.]

BREECH-LOADING ARMS.

At the fair recently held at Springfield, Massachusetts, the first premium—a silver medal and diploma—was adjudged to Maynard's breech-loading carbine. This breech-loader is the invention of Dr. Edward Maynard, a resident of Washington, and it is a strong endorsement of the merits of the arm that it should have won for him so high a testimonial from a committee of practical mechanics in the heart of the gun-making region of the United States, and where he was personally a stranger.

The committee speak of this rifle as combining, in an eminent degree, everything to be desired in a good fire-arm. With a charge of forty grains of powder, it is effective for any distance up to 800 or 1,000 yards. It may be readily used with loose ammunition, or ordinary paper cartridges, though it is specially intended to be fired with a metallic cartridge. This cartridge, which is absolutely *water-proof*, can be used any number of times, and, by means of a loader, can be recharged and the ball accurately set with great rapidity. The ball is in form a combination of the cone and cylinder, which insures its axis being always coincident with the axis of the barrel, so that the projectile cannot fail to start *true* from its bed—a desideratum of the first importance in sharp shooting, as is well known to every expert marksman. For military purposes a calibre of five-tenths of an inch has been adopted, but for sporting it is designed to put up in each case two extra barrels, one of larger and the other of smaller calibre than the military gun. By this arrangement, as the barrel can be detached with facility from the breech-piece, the sportsman will always be prepared for any kind of game he may desire to hunt.

The weight of this rifle is only about six pounds, and it is so portable that, with all its appendages and 100 rounds of ammunition, it can be packed in a case some twenty inches long, nine inches wide, and three inches deep. The arm is intended to be used with the "Maynard primer," but it admits equally well of the use of the ordinary percussion cap. The machinery for feeding out the primer is so arranged as to allow the primer to be returned to the magazine if it be not required, and also to be fed out and returned *by hand*, in case of any accident to the machinery. The rapidity with which the gun

can be loaded and fired is likewise quite remarkable. In ordinary hands, *twelve* discharges per minute are easily made, and with a little practice there would be no difficulty in accomplishing *fifteen* rounds per minute.

We understand that the patent for these arms is owned by a company, composed principally of citizens of Washington, and that the Massachusetts Arms Company, at Chicopee Falls, have a contract for manufacturing 5,000 of them, a small portion of which are now nearly completed, and will soon be offered to the public. A trial of the gun was made some months since, in the presence of the Secretary of War, and the results, we are informed, were so satisfactory to him that he directed the purchase of a number of the arms for the use of the regular troops.

[From the Washington Union of December 24, 1858.]

From a graphic description of a hunt in the Allegheny-mountain range of Maryland, and of the glorious scenery of that portion of the State known as the Alpine plateau, we extract so much as relates to the famous mountain hunter, Meshack Browning, and his descendants—who mainly composed the hunting party—their skill as marksmen, and to a trial of the shooting qualities of the best rifles used by the bear hunters when pitted against the rifle of Doctor Maynard, of this city, some notice of which has heretofore appeared in our columns. The account is from the pen of a gentleman who once had much celebrity as a hunter in the West, and who had renewed the wood sports of his early life after many years spent in literary pursuits.

The result of the trial places the new rifle in a position to justify the belief that it has properties not possessed by others, and which cannot fail to attract the attention of military powers abroad, as it has already attracted that of our own government, a considerable number having been ordered for our troops:

[From the New York Evening Post of December 2, 1858.]

HUNTING IN THE ALLEGHENIES OF MARYLAND—MESHACK BROWNING, THE CHIEF OF BEAR HUNTERS—MAYNARD'S BREECH-LOADING CARBINE.

"I cannot close without telling you that my mountain companions were as noble and sensible fellows as it has ever been my fortune to meet. They were all Roman centurions in their forms and presence, and an army of such, with a Washington or a Jackson to lead, could hold the despotisms of the world in awe, and an oligarchy at home that would sever the Union and overthrow the liberties of the people. They were, for the most part, descendants of Meshack Browning, now the octogenarian chief of the bear hunters of the mountains, where his infancy, manhood, and old age have been spent. He has the look of one born to command in the midst of the Alleghenies. No man ever had a head so much like General Jackson's—the same prominent, firm-set chin, resolved lip, Roman nose, with something of the refinement of the Greek; beaming eyes, sometimes expressing themselves in lightning, sometimes in the soft radiance of the rainbow made of tears. He has the same thin, elevated, furrowed forehead, crowned with a crest of thick, grey hair, lifted like the roused eagle's.

"This venerable man, who has been a hunter all his life, and made his living and portioned off his offspring, now amounting to 122, with mountain freeholds acquired by his gun, may well be considered the patriarch of this region. He has always been looked upon, although an illiterate man, as the foremost among the people for sound sense, integrity, heroic courage, kindness, generosity, and courtesy. Although he never had more than six months' schooling, he writes a strong, legible hand, and has a native eloquence and talent for conversation, which make all willing listeners, no matter who compose the company. His friends have persuaded him to write the incidents and adventures of his life. It may well be entitled 'The Life of a Hunter.' For the greater part of a century, and amidst the wildest and grandest scenes of our country, he has been one, of the highest and most romantic caste.

"I read as much of his story in manuscript as my active pursuit of the same enjoyments in the same region would permit, and was charmed to perceive that enough remained of the original grandeur of the wilderness and of the luxuriance and beauty of the creation, animate and inanimate, that belongs to it, to verify the graphic descriptions of his pages, and justify the enthusiasm that impelled so much genius in the career of a hunter. His narration is given with all the simplicity of Robinson Crusoe, but it has

the advantage of a vividness and strength of expression and of spirit, supported by the attendant circumstances recounted, that distinguishes reality from fiction. The story of the exploits of the hunter, Cummings, among the unwieldy game of Africa, although it attains verisimilitude in the same way, has not equal interest for me. Cummings is a military tactician and scholar, and does his work like a disciplinarian turned hunter. Our Sachem of the Mountains is a natural-born hunter, educated solely in Nature's own school, and gifted by Nature to tell her story eloquently and truly.

"But, from the school of military tactics, I surprised this hero of hunters (who may be said to have conquered the Alleghenies with the old long rifle) by the display of a little polished 20-inch gun, as easily wielded as a pistol, which he and the whole tribe of hunters, after repeated experiments, were obliged to confess excelled all the rifles they had ever seen. It was the breech-loading, self-priming rifle invented by Dr. Maynard, a gentleman who probably had his mind turned to the improvement of weapons by his military studies at West Point. His genius has certainly concentrated triple the power in less than half the material which once was thought indispensable to constitute the formidable arm which, borne on the person, could extend a man's deadly stroke with the greatest certainty to distant objects. The old rifle, to be effective, was held necessarily to be from three to four feet in length of barrel, and from eight to ten pounds in its weight. Maynard's barrel is twenty inches long; the rifle weighs less than six pounds, and uses but forty grains of powder for a charge. It looks like a child's plaything in the hands of a man; but try this rifle with the best guns extant, and the experiment will prove that it is superior to them all in invariable accuracy to the aim and that momentum which bears its balls to much greater distances.

"Before I started on my hunt, I tested Maynard's gun by trying it with my own hunting rifle, made by the celebrated Hawkins, of St. Louis, who has for years fitted out the hunters of the plains and the Rocky mountains. I found the little gun best at all distances. I then obtained one of the improved far-shooting rifles, manufactured at Harper's Ferry, under the supervision of scientific military men, adopting the discoveries which the achievements of the Minnie rifle in the Crimean war have suggested. Over this new piece Maynard's gun was again triumphant at all distances. I then adopted it for my mountain hunt.

"When I appeared among the hunters with this epitome of a rifle in polished steel, I could perceive, though suppressed with all possible politeness, a smile that passed around at the expense of my gun and myself. I endeavored to extinguish this latent ridicule by telling of the feats the gun performed at home. A compassionate look of incredulity made me sensible that my case was considered akin to that fellow who bragged of his great leap at the Rhodes, but dared not attempt the feat again upon the ground on which he and his companions, to whom he boasted of his activity, then stood. I quietly resolved that I would relieve myself of this presumption by taking an early occasion to compare the little gun's power with that of greatest repute in the mountains.

"At Hays', near the Virginia line, where a goodly company were assembled, and examining Maynard's gun with mingled curiosity and distrust, and some derision, I modestly proposed a shooting match. A hundred and fourteen yards were stepped off as a pretty good test for a hunting gun. Some half dozen rifles of the best repute were tried against the pop-gun, and all were beaten. The Surveyor of the county made his experiments with it, which proved equally honorable for himself and the gun. Then some of the best shots among the hunters tried with equal success and self-congratulation. The little gun became a favorite. Subsequently, on the other side of the valley, near the Pennsylvania line, where we had an accession of comrades, another trial was made with Maynard's against the mountain gun, shooting the distance of 232 yards. In this experiment the little gun was always close in to the mark; the others nowhere. A sharp-shooting machinist and eager hunter would test the thing with a rest for both himself and the gun, and nearly drove the centre.

"A fine marksman, who had a Harper's Ferry rifle of great celebrity, resolved to try both from his own shoulder. The little gun cut the paper; the big one missed the tree. The Surveyor of the county tried again his hand and keen eyes with it, and made a line shot just above the paper. On this the great bear-killer declared he never in his long life had seen any rifle equal to Maynard's. He lamented that he had not such a weapon in his early days: it would have been so admirable, by its quick loading, for his hand-to-hand fights with the bear in defence of his dogs in the laurel thickets, and for long shots from mountain to mountain over the precipitous gorges which divided them along the Savage river."

[From the *Chicopee (Mass.) Journal* of January 8, 1859.]

MAYNARD'S BREECH-LOADING CARBINE.

In no department of mechanics have improvements been so great, within the last twenty years, as in the invention and manufacture of guns. The best mechanical genius of this country has been turned toward the perfection of fire-arms. To this end, machinery of the most accurate movement has been constructed, so that now the lock, stock, barrel, and all that pertains to a gun, are made by the help of machinery, with astonishing rapidity and surprising accuracy. In all our armories in which machinery is used for the manufacture of arms a scale of sizes is used, and every part of a gun is made to conform to the standard adopted with rigid exactness. The great advantage attained by this mode of construction is, if any part of a gun breaks or gets out of order, instead of being at the trouble or expense of sending the gun to a smith to be repaired, the owner has only to send to the manufactory where his gun was made, and the defect can be remedied at a trifling expense, be it lock, stock, barrel, or any part whatever. Hunters in our Western wilds, where gun-shops are inaccessible, will at once see the advantage of this system of manufacture. So, too, on a field of battle, the advantages of such a system are recognised. Out of half a dozen demolished arms, a weapon may be constructed in a few minutes, by taking a lock, or some of its parts, from one, a screw or barrel from another, and so on, which, in all respects, will be as perfect as either of them were when they came from the armory.

Any of our readers wishing to "post themselves up" in this system of making guns by machinery, can do so by a visit to the Massachusetts Arms Co. at Chicopee Falls, and going through that extensive establishment with their eyes open. From the forge shop, one may see rifles and pistols in every stage of progression, nearly all done by machinery, guided and controlled by skillful and competent hands, until they pass through the last stage and come forth perfect and finished, ready to take their "stand" in the government arsenals, or go on their mission of death, in the hands of the hunter or the soldier. The Massachusetts Arms Co. are now filling contracts for fifteen thousand Maynard's rifles and Adams' pistols, a part of which are for the United States government.

But it is of "Maynard's rifle" that we purposed to speak more fully. This arm, which is fast becoming famous in this country for its efficiency as a weapon, either for the sportsman or the battle-field, is the invention of Dr. Edward Maynard, of Washington, D. C. It is altogether the neatest and prettiest rifle we ever pointed at a target.

A trial of this gun of eight to ten rounds, fired the distance of 200 yards at a six-inch target, satisfied us of its perfectness and efficiency, and gave convincing proof that, in the hands of an experienced marksman, it must be a most deadly weapon. A metallic cartridge is generally used, and may be fired a hundred times or more without injury. To test these cartridges, whether they are really *water-proof*, one was thrown into a vessel of water, and remained there until we were satisfied that the powder within could hardly become damper by exposure to rain or weather. It was then fired, and went off as readily as it could have done before soaking it in the water.

[Extract of a letter, dated July 14, 1859, from Lt. Col. B. S. ROBERTS, of the Regiment of Mounted Riflemen, U. S. Army, to the Secretary of the Maynard Arms Company.]

I am sure the merits of your gun over all other breech-loaders for mounted troops and skirmishers, will be acknowledged. Its peculiar advantages, in my estimation, are the motion of the barrel, raising the breech for loading, its metallic cartridge, and the primer. The construction of the cartridge avoids windage and fouling, and preserves the powder under all circumstances. It seems to answer every end that the soldier and sportsman could have desired, or ingenuity devise and apply to practice.

I have used your rifle at all distances within the range of any accuracy of vision, and its precision and penetration surpass any expectation I had ever formed, as within the accomplishment of small-arms. At 700 yards the penetration was *two and a half inches* in a large oak.

It is discharged *ten* times per minute easily, and with certainty of aim, in skillful hands.

cape of any gas. When fired, no difficulty occurred in withdrawing the case so as to reload, excepting in one instance.

A self-priming apparatus is attached, but it was used in a few instances only. *The first day, October 24th*, a screen 10 feet high and 20 feet wide, made of one-inch pine boards, was placed at a distance of 500 yards, and 250 shots fired at it in the course of two hours. Every shot struck—one only on ricochet. The first ten were trial shots, to adjust the sights. A sketch of the screen is annexed. [See the drawing of target, marked Fig. A.] The wind was light, across the line of fire and to the left.

Second day, October 25th.—Continued with the arm just as it remained in the condition from the firing of yesterday. Fired at an oak target, 10 feet high and 30 feet wide, distant 1,300 yards, faced with white-pine boards one inch thick. A man stationed near the target failed to give the signals directed for knowing when the range was obtained, and 32 shots were expended before this was done.

Forty-three [43] shots were then fired, of which 14 struck, and, passing through the pine board, entered the target (seasoned white oak) nearly, if not quite, to the extent of their length. The weather was very mild, and the atmosphere perfectly still.

To supply the expenditure, some shot had been cast here in the moulds furnished by the inventor; but when these were charged by him into the metallic cases, the latter were slightly expanded, and some would not enter the chamber more than half their length. Dr. Maynard attributed this to not closing the moulds perfectly in casting. Mr. McFarland thought there might be some difference in the shrinkage of the lead. The cases thus charged were laid aside, and subsequently no difficulty was experienced with shot cast in the same moulds.

The third day, October 26th.—Mr. McFarland concluded firing with 237 rounds. Target 3 feet by 6 feet, 200 yards distant. Wind light, over right shoulder, (Nd. & Ed.) Every shot struck.

Of 40 shots fired purposely on ricochet, three struck sideways, one not passing through the target.

Twelve rounds with Maynard's self-priming apparatus were fired in one minute, nine of which struck; 13 also in another minute, of which three primers failed.

Fourth day, October 31st.—The officers fired 40 shots on ricochet at a screen 500 yards distant; 37 struck the target, of which 12 were direct and 25 sideways.

On the whole 602 shots were fired, and the piece worked quite well at the 562d fire, when it was cleaned of the slight foulness that had accumulated.

Two of the metallic cases were used to fire 200 shot alternately, after which they remained as serviceable as at first.

The nipple being too small for the service caps, those of Eley were used. The memorandum of Lieuts. Lewis, Davenport, Franklin, and McCorkle concludes thus:

"The recoil is considerable, but not greater than is to be expected from a piece so light. We think it strongly recommends itself to the test of the Naval service, but its present length is only fit for boat service. To be used in the field, it should be made of sufficient length to receive a bayonet."

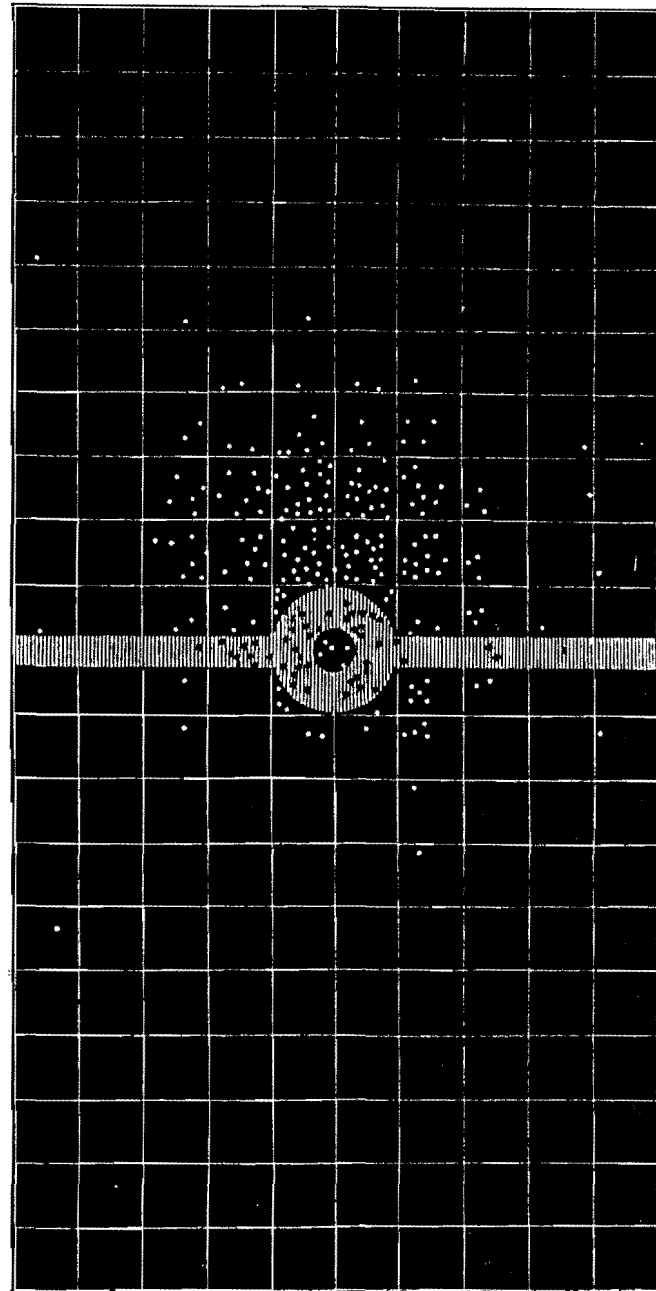
I have the honor to be, very respectfully,

Your obed't serv't,

JNO. A. DAHLGREN,

Com'dr in Charge of Ord. Dept. in Yard.

MAYNARD RIFLE.—FIG. A. Drawing of Target accompanying Capt. Dahlgren's Report of Nov. 9, 1859.



Size of Target 10 ft. by 20 ft. Distance 500 yards. Number of rounds 250. All struck. Note.—It will be observed that four-fifths of all the shots are included within a space of four feet square.

[From Hon. HOWELL COBB, Secretary of the Treasury, to the President of the Maynard Arms Company.]

TREASURY DEPARTMENT, December 15, 1859.

SIR: Ample testimony, from sources every way entitled to confidence, having been furnished this Department, of the superior merits of the "Maynard Breech-Loading Carbine," it was, after due consideration, determined to introduce it on board the Revenue Cutters, to take the place of different kinds of small-arms in use on board those vessels.

Since the introduction of this arm into the Cutter Service, it has met with unqualified approbation, and the Department now takes much pleasure in bearing testimony to its great superiority over all other small-arms heretofore furnished it.

I am, very respectfully,

HOWELL COBB,
Secretary of the Treasury.

[From "Wilkes' Spirit of the Times" of December 17, 1859.]

THE MAYNARD RIFLE.

This new rifle is fast winning its way to celebrity, and its success bids fair to outstrip the most sanguine anticipations of its friends. Commendations of its excellence, both as a military and sporting arm, pour in from all quarters. It has, we learn, been adopted for our Revenue Cutter service; and at a recent trial in Paris before a board of French officers, it bore off the palm from the celebrated rifle of the Chasseurs of Vincennes, beating it at all distances up to 1,000 yards. Subjoined are extracts from letters of two veteran sportsmen, setting forth its merits in a way that cannot fail to arrest attention. The sporting world of Maryland and Virginia will not require to be told who Mr. Edward Stabler is. Mr. Heaton, we understand, is hardly less known in Illinois as one of the most ardent and successful sportsmen in that State. The New York agents for the sale of this rifle are Messrs. W. J. Syms & Bro., No. 300 Broadway, where we advise our friends to call and examine it.

"HARWOOD, MD., 10 mo. 22d, 1859.

Having a leisure hour this evening, I comply with my promise to give the result of a trial of the 'Maynard Rifle' in deer hunting. The opportunity was a very limited one, owing to lack of spare time, and rainy weather; but the success or efficiency of the gun fully realized all my anticipations, killing two deer the same day, and under rather unusual circumstances.

"When I first saw the deer it was in Cacapon river, some 300 yards below me, and swimming up stream; when within 80 to 90 yards my companion could stand the excitement no longer—getting the fidgets, or perhaps a touch of the *buck ague*—and fired at its head. The deer instantly turned for the opposite shore, and in the act of turning, the body was raised out of the water three to four inches, when I put a ball *through it* at the water-line, back of the shoulder. At the first jump it touched bottom; and when making the third spring, and going directly from me, my second ball entered exactly between the hams, and ranged *lengthwise through the body*. This stopped it, but as it still struggled for the shore with the fore feet—for the hind legs were useless—and to keep it nearer our side, I shot it the third time, but more to see how quick the rifle could be fired, as I saw that the deer was perfectly helpless.

"All this was done in less than half a minute from the crack of my companion's rifle; and although he is a practised hunter, he had not reloaded, while I had fired three times, reloaded as often, and was ready for a fourth shot, if necessary. But for the 'Maynard,' that deer would have escaped. And proving conclusively that it is immeasurably superior to all muzzle-loading rifles in rapid firing, and freedom from all danger in accidental firing, while most hurriedly loading—a most important feature to the sportsman.

"In the afternoon, however, the rain ceased, when we made another drive—the deer coming to the river, but turned back, and up stream, but where he could not scale the high, steep mountain side. Then commenced a scene of great excitement as to who

should get the shot at the next crossing. My friends, hale, hearty mountaineers, could run me out of sight directly. The deer attempted to cross, was fired at and turned, and while they were reloading, watching the chase, &c., I was going ahead. Reaching my point, where I could range three or four hundred yards up and down the stream, I stopped to breathe. In a few moments the deer, finding he would be caught by the dogs or have to take the water, turned and came down the mountain like the wind, six dogs close behind, in full view, and fairly frantic with the chase. As the deer sprang into the water it saw me, and partially turned, presenting the side; but before it could make a second jump into deep water, I put a ball through and through, entering just back of the shoulder, and coming out near the ham on the opposite side. Some of the dogs, not able to check their speed, plunged head foremost into the river, presenting a ludicrous mass of dogs and deer. I shot diagonally across the river, and suppose one hundred to one hundred and twenty yards; and before my companions, then also within long range, could or did fire, I was reloaded and ready for a second shot.

"With the length of my barrels, 32 inches—and they are as short as I would have any gun*—and the admirable arrangement of the sights for all distances, from one hundred to one thousand yards (and the rifle is even effective at that distance,) I consider the 'Maynard' quite as efficient at three hundred to four hundred yards as the best common rifle at one hundred to one hundred and fifty, the range of the ball being nearly or quite double. After arranging mine with a hair trigger, I fired four successive shots at 66 yards (with a rest,) and a dime covers three entirely, and nearly all of the fourth ball. At three hundred yards I have fired three successive shots (also with a rest) within three-fourths, one and one-fourth, and two inches of the centre of the target. It is the gun, not the marksman, for others with younger eyes can excel anything I can now perform. If my hunting days were to be gone over again, three times the cost could not induce me to dispense with a 'Maynard rifle.'

"With kind regard,

EDWARD STABLER.

"To EDWARD MAYNARD."

"FARMINGTON, ILL., October 18, 1859.

"DEAR SIR: I thought it about time to inform you that I did receive the gun that you forwarded to me by express. It came safe to hand, and in good order. I thank the man that put it up, as it was done in the best manner. I should have written sooner, but thought I would wait till I returned from my hunt, and then I could tell something about its shooting; but I can hardly do the gun justice. I must say that I did make some tall shooting with that small gun. I shot ducks and geese at as long shots as I ever did with a twelve-pound gun. One of the boys thought I must have strained the gun, and one of the rest thought I *judged* a little, or I never could have shot a brant at such a height as I did with so small a gun. Well, it was a good shot, and we are all well pleased with the gun, only my wife thinks that the rest of my guns, six in all, and herself, are somewhat neglected. I shall not attempt to tell how many have called to see the 'little hornet,' and all are well pleased with it, and think as soon as they can they will try and have me send for one or two more, which I will do willingly, gratis.

"One of —'s agents offered me a present of one of their guns to recommend it to the public; but, as I said when I ordered my gun, this was the *only* breech-loading gun that I could use or would recommend. I now am a resident of this place twenty-two years, and during this time I have spent over *three thousand dollars* for guns, and no one of them has come up to my expectation as well as the Maynard breech-loading shot gun, and \$1,000 could not deprive me of it, sure and certain.

"Yours, with much respect,

M. HEATON.

"Mr. Wm. P. McFarland."

[Extract of a letter from General A. J. GONZALES, of South Carolina.]

OAK LAWN, ADAMS RUN P. O., S. C.

January 2, 1860.

DEAR SIR: * * * * *
I recently made with my little shot gun a most remarkable shot at a deer. I

*See letter of E. W. Cook, page 17, as to length of barrel.

had in my gun nine swan shot, of which it chambers three, and on the top of these I placed a very large buck shot, but much smaller than the gauge of the gun; and in order to make it retain its position and fly straighter, I wrapped this single shot in flannel. Well, with this single shot (the rest falling short of the distance) I killed in his tracks, at the enormous distance of 160 yards, a deer at full run through a cluster of large pines. This shot has given the gun great celebrity here.

Mr. W. P. McFARLAND,
Agent Maynard Arms Co., &c.

[From the Richmond (Va.) Examiner, of January 3, 1860.]

IMPROVED FIRE-ARMS.—BREECH-LOADING GUNS.—THE MAYNARD RIFLE.

The discussion of the many wonderful improvements in fire-arms has, for some time past, occupied a prominent place in other books and journals than those devoted to the science of war. The most entertaining as well as instructive articles which have appeared in the London *Times*, as well as in the four leading and best known "Quarterly Reviews" of Great Britain, for many years, have been those which explained, illustrated and discussed the merits of the inventions of MINNIE, ARMSTRONG and COLT, together with the subsequent improvements of the original Minnie rifle which had been made at the English government manufactory at Enfield.

These widely-circulated journals and periodicals have, during the last three years, placed the reading public in possession of all the facts and experiments relating to those terrible rifles, muskets and cannon which have made so great a change during the last decade in the science of war. Until within the last three or four years, the honors of the three greatest inventions in fire-arms of the nineteenth century were equally shared by France, England, and America, each having produced a great inventor.

The Minnie rifle and musket were the discovery of a citizen of France, the rifle cannon was the invention of ARMSTRONG, an Englishman, and the most famous and deadly of revolvers was first patented by COLT, an American.

Another great invention is now attracting much attention. The interesting extracts which we publish from a very long and able article in a recent number of the *National Democratic Review*, (the production, evidently, of a soldier and man of science), furnishes the best and most lucid account which we have yet seen of an improvement in breech-loading rifles and guns, and which has won for the United States the honor of having produced a recent improvement in arms as remarkable as that either of MINNIE or of ARMSTRONG. The elaborate and lucid account of "THE MAYNARD RIFLE," which we publish elsewhere, renders any long description of it by us unnecessary. We have, however, recently witnessed the performances of this beautiful and remarkable fire-arm, and, whether used by the soldier or the sportsman, it is the most reliable and accurate gun, for all distances from one hundred to one thousand yards, which we have ever seen tried. Whilst General SCOTT pronounces the "Maynard Primer" the greatest improvement in fire-arms made during the century, and says of the Maynard rifle that "it seems to do all that is required of a military rifle, and to do it in the best possible manner;" the most eminent hunter in this country declares, the "Maynard," after "forty years' use of the rifle," the best in "facility of loading" and in "accurate shooting for long distances and for penetration" which he has ever tried.—Recent as has been the issuing of "letters patent" for this rifle, it has already been introduced into the Revenue service by Mr. COBB, the present Secretary of the Treasury, who speaks of it in the highest terms. After a trial also of this gun in 1858, in the presence of the present Secretary of War, the result was so satisfactory that it was at once introduced into the Army, and after its use for more than twelve months, Gov. FLOYD, in his last annual report, thus speaks of that class of arms to which the rifle of Dr. MAYNARD belongs—(Report of Sec. of War, Dec., 1859, pp. 9 and 10)—"Under the appropriations heretofore made by Congress to encourage experiments in breech-loading arms, very important results have been arrived at.—The ingenuity and invention displayed upon the subject are truly surprising, and it is risking little to say that the arm has been nearly, if not entirely, perfected by several of these plans. These arms commend themselves very strongly for their great range and accuracy of fire at long distances; for the rapidity with which they can be fired; and their exemption from injury by exposure to long continued rains. With the best breech-loading arm, one skilful man would be equal to two, probably three, armed with the ordinary

muzzle-loading gun. True policy requires that steps should be taken to introduce these arms gradually into our service, and to this end preparations ought to be made for their manufacture in the public arsenals."

When the rifle of Dr. MAYNARD was subjected to an official trial by order of the Secretary of the Navy, it furnished extraordinary proof of its durability, range and precision, and, unlike many other breech-loading guns, of its capability of being fired "six hundred times" without "fouling," or any portion of the machinery of the gun sustaining the slightest injury. Upon this occasion the targets were placed at "two hundred," "five hundred," and "thirteen hundred yards." "Two hundred and fifty shots were fired at five hundred yards, every one of which struck the target, and by far the greatest number within a three-foot ring." Our own observation and official reports induce us to believe that the Maynard rifle is as great an invention as any of those to whose wonderful performances the English "Quarterlies" have lately devoted so much space.

The inventor of this gun, as remarkable in every respect as those of MINNIE and ARMSTRONG, is Dr. EDWARD MAYNARD, of Washington, who was educated, we learn, at West Point. The gun is a breech-loading rifle, weighs only about six pounds, and is so light and portable that, with all its appendages and one hundred rounds of ammunition, it can be packed in a case twenty inches long, nine inches wide, and three inches deep. It can be fired from twelve to fifteen times a minute, and its simplicity and strength of mechanism render it as little liable as the old muzzle-loading rifles to get out of repair. To sportsmen this is the most attractive gun which we have ever seen, and for all sorts of game, from squirrel to buffalo, it is the best sporting rifle we know of. With all its appendages complete, this rifle has rifle-barrels for two sizes of bullets and one for shot. With the twenty-inch barrel, the entire rifle weighs less than six pounds. The larger calibre, carrying about twenty bullets to the pound, is large enough for any game. The smaller calibre, carrying, perhaps, sixty-five or seventy bullets to the pound, is good for shooting deer, turkeys, geese, &c., at great distances. With balls of this size, huntsmen have shot within an inch of the centre of a target at the distance of two hundred and thirty strides. The shot barrel is intended for shooting squirrels, ducks, and even smaller game, at a great distance. As the barrel is readily separated from the stock, and the entire rifle may be packed in a space twenty inches long by six inches wide, and about one inch deep, it may be carried by the traveller in his portmanteau, valise, or carpet-bag; thus, without any inconvenience, affording him the best means of amusement wherever he finds game, and of safety in times of danger, as it works so simply, cleanly, and easily, that any number of shots may be made at the rate of ten to fifteen per minute, depending upon the dexterity of the shooter.

As a military gun, the Maynard rifle has been pronounced invaluable to cavalry and howitzer companies, as well as to the ordinary rifle companies. From what we have seen of this rifle, and from a thorough knowledge of the wants and sympathy with the sportsman of the South, the time is not far distant when it will rank, as a sporting rifle, as high as it now does in the army, navy, and revenue service of the United States as the most remarkable rifle of the day.

[From the *Richmond (Va.) Enquirer*, of January 17, 1860.]

MAYNARD'S IMPROVED RIFLE.

Our readers will find in our paper of to-day an article on rifles, from "The National Democratic Quarterly Review." We commend it to their attention as an ably written paper, and, at the present crisis in our national affairs, a very interesting one.

Now that our people are thoroughly aroused to the importance of introducing improved fire-arms, we trust they will not fail to obtain those which possess, not only the requisite military qualities, but the most perfect adaptation to their habits and necessities for sporting purposes. Fortunately, these merits are all combined so simply, skillfully, and beautifully in the Maynard rifle as to leave little or nothing more perfect to be imagined. Nothing in the way of fire-arms has ever met with the same favor for sporting purposes. Its unequalled accuracy; its facility of use in all weather—be it hunting deer in the wilds and heavy snows of Canada, or in the chase of buffalo on the western plains; its perfect safety and incredible force; the integrity of its ammunition, however roughly handled, even after days of immersion in water;—these qualities, when combined with the no less essential ones of perfect workmanship, facility for keeping in order, freedom from fouling with any number of shot, remarkable portability,

and very light weight, (less than six pounds,) together with its admirable adaptation for use on horseback, make this the most desirable fire-arm for a people like ours.

It is scarcely necessary for us to say, that while an arm clumsy, useless, dangerous, or defective for sporting use, would soon go to ruin if placed in the hands of the militia, a fine sporting piece, like the Maynard rifle, light, handy, beautiful, safe, and efficient, would be always a favorite, and always ready for use. The interest of the militiaman would induce him to keep such a gun in order, its shooting qualities being such that he could use it with profit as well as amusement. This rifle is so arranged that the barrel can be detached and a shot barrel or a rifle barrel of small calibre put in its stead in a moment, the cost of such extra barrels being so little that no one need fail to obtain them, and every different barrel gives virtually a different gun; so that with the original rifle furnished by the State, and the extra barrels furnished at the militiaman's own expense, he is ready for any kind of shooting, civil or military.

We speak thus strongly in favor of the Maynard rifle, not merely from the unanimous commendation of those who have used it and the official reports which have led to its adoption already, to the exclusion of all other small-arms, in the Revenue service, but from having ourselves become familiar with its operation, which is altogether of such a strictly scientific character, such a direct and admirable application of the science of mathematics, as to give one the sort of confidence in it that he has in the multiplication table. To hear it explained by the inventor is to hear one of the most interesting lectures in mechanics it has been our fortune to listen to; while its beauty of form and truthfulness is such that one is not so much surprised at the complaint of the western hunter's wife, that "since her husband had bought a Maynard rifle she found herself very much neglected."

We doubt if any State in the Union can furnish so large a number of young and middle-aged men, who are such thorough horsemen, as Virginia. Our habits make us all riders, and generally riders of good and well-trained horses. Such a body of men, armed with the Maynard rifle, every man capable of exercising a judgment not expected from the common soldiers, could exert a force, moral as well as physical, never yet seen in an army.

Shall we have such arms for such men? Or shall we have such atrocious blunder-buses as it may be for the interest of the General Government to get rid of; such revolvers as are worthless for sporting and unsafe in any use; and such breech-loaders as are defective in design, unreliable, or even dangerous; and using ammunition which it is difficult, if not impossible, to prepare in the field, and that is ruined by immersion in water, or blown up by a hit from a bullet?

We have the best possible men: let us do them justice by giving them the best possible arms.

[Extract from an article in the "National Democratic Quarterly Review," for November, 1859, entitled "Rifles."]

Let us now lay down a few of the requisites for a rifle. It must not be so heavy as to encumber a man painfully; in fact, not an ounce heavier than is absolutely necessary for strength, steadiness, and prevention of unpleasant recoil when a sufficiently heavy bullet is used. It must not have any escape of gas, except at the vent, and as little there as possible. Of course this rifle should be self-priming, since it is more difficult, in action, to prime with a cap than even to load at the muzzle when on foot, and both are nearly impossible, in action, when mounted. Its ammunition should be absolutely unchangeable in any respect—that is to say, there should be no possibility of using more powder at one time than another, (except it be designedly,) or of the powder being dryer at one time than another. The bullet must be so arranged that, without the possibility of failure through the casualties of service, it shall, when placed in the rifle, have its axis held exactly and firmly in the axis of the bore, and of such form that, when so set, it can neither change the direction of its axis while in the barrel, nor change its form as it leaves the barrel. The ammunition must be easily prepared by the man who is to use it, and without the necessity of paper, twine, rolling stick, table, and all, or, indeed, any, of the arsenal apparatus, or any other that he cannot carry in his pocket, and use in the most unprepared place.

How many of all the scores of known breech-loading rifles fulfil these conditions? One only. A writer in a late number of the *Atlantic Monthly* says: "In breech-loading guns much must be sacrificed, in point of accuracy, to mere facility of loading; and here there seems room for doubt whether a breech-loader offers any advantage compensating

for its complication of mechanism, and danger of its being disabled by accident in hurried loading. No breech-loading gun is so trustworthy in its execution as a muzzle-loader; for, in spite of all precautions, the bullets will go out irregularly. We have cut out too many balls of _____'s rifle from the target which had entered sidewise, not to be certain on this point; and we know of no other breech-loader so little likely to err in this respect, when the ball is crowded down into the grooves, and the powder poured on the ball, as we always use it." And again: "We have used one of _____'s two years in hunting, and found it, with a round ball at short shots, perfectly reliable; while with the belted picket perhaps one shot in five would wander. Used with the cartridge they are much less reliable." Again, after speaking of the aptness of the same gun to clog, except when fitted with certain "gas rings," and using "good powder," the same writer says, "the Maynard rifle is perfectly unexceptionable in this respect, and an excellent gun in its way. The powder does not flash out any more than in a muzzle-loader."

We have made this extract partly to show what is the great defect in most of the breech-loading rifles, and partly to give an instance of gross injustice towards at least one. The writer cited says, "in spite of all precautions the bullets will go out irregularly" from breech-loading guns; and, as an evidence of the truth of his assertion, tells of the performance of one of the most faulty kinds in use, viz: one that not only does not set the bullet at all, but varies the quantity of powder used by a necessary waste incident to its loading of from six to fourteen grains. Doubtless what he says of that gun is true, since it accords with the experience of others; but to have pretended to a knowledge by experience in the use of the Maynard rifle, and yet to have said that the other one specified was less likely to err in throwing its bullets irregularly, was simply to show how little he really did know of the Maynard rifle, in which all the conditions before set down, and others of scarcely less importance, are absolutely fulfilled with such mathematical exactness that it has been chosen as a target gun by one of the most successful marksmen of the country. Out of the thousands upon thousands of shots made with these rifles at the manufactory, and in the hands of sportsmen, not one has been known to "enter the target sidewise." Doubtless it is "an excellent gun in its way," and fortunately its ways are not like the ways of the other one.

To return from this provoked digression, we will say, what we have already implied, that in the rifle of Maynard we find the greatest reduction of weight admissible with a bullet heavy enough, and using powder enough, to kill at a long range, say a mile. For ammunition, we find a cylindrical metallic cartridge, in which is always the same quantity of powder, and always the same weight and shape of bullet not hollowed out. We find the bullet lubricated and set so firmly with its axis precisely in the axis of the cartridge that it cannot be deranged by hand. We find the vent hole at the centre of the bottom of the cartridges very small, and filled with the same substance—that being at hand—used for lubricating the bullets; thus keeping the powder in a state of perfect dryness—in fact, making the ammunition water-proof without impeding the fire from the primer. We find a simple forward motion of a lever (which serves also as trigger-guard) to throw up the butt of the barrel; that the cartridge is inserted with the utmost facility into a slight enlargement of the bore, which enlargement it exactly fits, thus setting the axis of the bullet with mathematical precision in the axis of the bore; that a return of the lever to its place depresses the butt of the barrel, and secures it with great firmness to the breech, the cartridge itself packing the joint, and keeping its own chamber in the barrel so clean that no obstruction is ever there to interfere with loading. The empty cartridge is with like facility removed; and such is its durability that, if half of those used be lost after the first fire, the other half can be used so many times—more than a hundred—as to reduce the cost of cartridge for each shot below the cost of the paper in the ordinary one. One little appendage—a single bit of iron not so large as the finger—constitutes, with a powder-flask, the entire apparatus for loading the cartridges. We find this ammunition so proof against damage that the necessity for carrying it in a peculiar box is obviated; so that any number of cartridges that a soldier or sportsman can conveniently carry may be distributed at his pleasure among the pockets of his dress. We find the Maynard primer, though still lacking the very important quality of being water-proof, yet so perfectly applied as to develop all its present merits; and these are so great as to have gained for the inventor a military title of nobility from one of the most enlightened sovereigns of Europe, and to have been pronounced by the commander-in-chief of our army "the greatest military invention of a century." We find the rifle itself so constructed that, in a moment, without tools, or the danger of dropping any part, it is separable into two parts, one of which we have ourselves carried on each side of the person, under the coat, perfectly concealed,

and leaving the hands free; suggestive of a *Zouavie* style of gymnastic fighting that we should like to see some attention paid to in our army.

In its appearance this rifle has the unanimous commendation of the most accomplished artists. In its distribution of material for a proper poise for off-hand shooting, it meets the approbation of those who have used it most and with the greatest success. In its mechanism, and in that of the ammunition, are seen the wonderful simplicity and directness with which the new mathematical features of both are applied, and which tell so convincingly upon the engineer.

Evidences of the astonishing performances of this rifle are daily accumulating, some of which have had extensive circulation in the newspapers. Already its success in England is multiplying the orders from that country; and in France one of our army officers has recently demonstrated its superiority at eight hundred metres, in a trial against the famous rifle of the *Chasseurs de Vincennes*, fired by one of the best shots in the French army. Even while we write comes in a gentleman in spectacles, and sixty-five years old, to tell us of his putting four successive shots with the Maynard rifle, at sixty-six yards, through a hole that a ten-cent piece would cover.

We cannot doubt that one who could produce such a rifle must have deeply investigated the mechanism of arms. Such results are not arrived at without great mental labor, and too often, as in the present case, not without great pecuniary sacrifice. Fortunately for the public, and let us hope for the inventor and his associates of the Maynard Arms Company also, sufficient capital, enterprise, and ability are now embarked in the manufacture of this valuable weapon to insure the most perfect workmanship, and upon a scale sufficiently large to meet the rapidly increasing demand. Already sporting marksmen are offering to shoot with this rifle, giving great odds, against any breech-loader not using the same kind of ammunition, and against any muzzle-loader not using a telescope sight. While we endorse the prediction of a distinguished writer for the *London Times*, that "in twenty years from this time there will not be a ramrod made for fire-arms," we most confidently add, as our belief, that long before the half of that time shall elapse the Maynard rifle and ammunition will be so fully appreciated that no less advantages than they possess will satisfy either sporting or military men.

Those who object to introducing what they are pleased to term "nice points" into a military weapon, upon the ground that the soldier knows nothing of such things, that he needs no such things for his rough use, &c., should consider the end to which such reasoning will lead them. If the soldier have no sights upon his gun, will he shoot as well as if he has good ones? And if he has the best ones practicable, is he not likely to shoot still better? If his gun is sighted for a certain velocity of bullet, will he not shoot better if that velocity is always assured, than if it is to be constantly varying through his losing more or less of his powder in the act of loading? If it be actually impossible for him to overload his gun, or to insert his cartridge wrong end first, will he not be a safer as well as more efficient man than if he use guns and ammunition with which these things are both of the most frequent occurrence? If his bullets fly more truly and uniformly from being set and held truly in the rifle, is he not likely to make better practice than if no provision is made to set and hold them? If his gun is very beautiful in form, pleasant to handle, and so easily taken apart and put together as to require only a common pocket-knife for the purpose, will he not take better care of it than if it be an eye-sore and a drag upon him, and requires the assistance of an armorer to keep it clean? If he can prepare his own ammunition in the field, and make it water-proof, is not his efficiency so greatly augmented that no commander would willingly forego such advantages? These "nice points" are analogous to those, the introduction of which into all mechanism—all applications of science—constitute advancement.

As for the expense of providing the best arms for the service, let us take a practical view of it. What will be the moral effect and consequent increase of efficiency of the soldier if, instead of a cumbrous and slow working gun, such as no hunter would use except to defend life, he knows it is impossible that his enemy should have a better one than himself? Suppose a battle lost through inefficiency of arms: would not the loss of that battle do more damage to the nation than could be compensated for by a sum equal to the cost of all the arms in the service?

"Respectable stagnation," which is attended with so little mental effort, and requires such a very small amount of scientific information or practical skill, is incompatible with success in civil affairs; in the affairs of the nation it must be equally so. Perversity, that is only safe and tolerated by the public because it is official, cannot now repress the demands of the time. The recent results in Europe of the use of improved weapons and celerity of movement cannot be passively overlooked; they must be actively studied for the benefit of our own service.

The actual trials ordered in the field and on board ship have shown that soldiers and sailors are not such stupid people as they are stupidly said to be; that they have a knowledge of mechanism and a dexterity often far exceeding that of their officers, and that admit of an enormous increase of their efficiency if supplied with improved arms. Several kinds of breech-loading arms were furnished to the "Plymouth" practice-ship, and no difficulty whatever occurred in learning their use. In the field, even the clumsy, and leaky, and wild-shooting rifle, referred to by the writer in the Atlantic Monthly, has been found better on some accounts than a muzzle-loader. The old fear that, because the soldier can load and fire rapidly, therefore he will waste his ammunition before the enemy is near, has given way before the fact that, as in hunting dangerous game, it is precisely because he can load and fire rapidly that he prefers to wait until the enemy is near. An official trial of the Maynard rifle has recently been made by order of the Secretary of the Navy, resulting in extraordinary proof of the durability, range, and precision of the arm, and of its capability of being fired continuously without its "fouling" for an incredible number of times. After near six hundred (600) shots, without at any time cleaning any part of the gun, no "leading" of the barrel was found, nor any "fouling" of it or of the mechanism of any part of the rifle to such a degree as to interfere at all with its working. A number of the cartridges, taken at random out of a lot in use, were fired one hundred (100) times each without "fouling," or becoming changed in any respect so much as to enable one to distinguish them from others fired but once; so that they seem to be as durable as the gun itself. The targets were placed at two hundred, (200,) five hundred, (500,) and thirteen hundred (1300) yards; two hundred and fifty (250) shots were fired at five hundred (500) yards, every one of which struck the target, and by far the greater part were within a three-foot ring. At thirteen hundred yards, the angle at which the bullets struck, and their penetration, show most conclusively that the rifle can be used with most deadly effect at a far greater range without any increase either of its own weight or that of its ammunition. After being fired more than five hundred (500) times without any part having been at any time cleaned, the rifle was fired "off hand" twelve times in one minute, at two hundred (200) yards, at a target six by three feet, and nine out of the twelve shots struck the target. No stronger evidence than this is needed to show either the perfection of its mechanism or the simplicity of its operation.

[From "Wilkes' Spirit of the Times" of January 14, 1860.]

THE MAYNARD RIFLE.

We are favored this week with another communication regarding this celebrated weapon. It will be seen that the writer, a well-known rifle manufacturer at Lockport, speaks of the great power as well as accuracy with which the ball is projected, producing such deadly effect.

Although the writer does not give a particular description of its power as exhibited in the hunt, as did Mr. Edward Stabler, of Maryland, in the letter referred to, (which our readers may remember,) who said that a ball discharged by him at a deer entered "exactly between the hams, and ranged lengthwise through the body, and this stopped it," yet he says he thinks it will shoot through anything but a frozen hemlock—an emphatic corroboration of its shooting power.

The gun can be seen at the agents', W. J. Syms & Bro., 300 Broadway.

"LOCKPORT, N. Y., December 19, 1859.

"Messrs. W. J. SYMS & BRO., 300 Broadway:

"GENTLEMEN: I arrived home Saturday night from my hunt in Canada, and I cannot speak in too high terms of the performance of the 'Maynard rifle' as a hunting gun. For convenience in carrying, and accurate shooting, it cannot be surpassed. As you know, I have been engaged in the manufacture and sale of fire-arms for twenty years, and must say this is the best rifle, all things considered, I ever saw. I was much pleased with it when I examined it in your store last spring, though I did not then conclude to purchase one, but no money would induce me to part with it now if I could not procure another.

"As regards strength of shooting, I cannot say we made any such shots as Mr. Stabler speaks of in WILKES' SPIRIT, but when we hit one, it went through. In fact, I think they will shoot through anything but a frozen hemlock.

"Deer hunting in a Canadian wilderness is altogether another thing from hunting further south; you follow them—that is, 'still hunt.' The cedars and brush are loaded with snow, but my 'Maynard' did not once miss fire. Three of us brought home thirty-six deer. I would say in connection that the short barrel is far preferable to any other length; it is lighter, easier packed or carried, shoots stronger, and is in every way handier, especially in swamps or thickets.

Yours truly,

E. W. COOK."

Extract from a letter from A. M. BALL, Esq., Master Armorer at the U. S. Armory at Harper's Ferry, Va.

HARPER'S FERRY, Va., Jan. 16th, 1860.

DEAR SIR:

The carbine came safely, but owing to the inclemency of the weather I have not had an opportunity of testing it at long ranges; but from the trials at from one hundred, to two hundred and fifty yards, I am fully convinced that no arm of the same calibre and weight of metal can compare with it as to force and accuracy. It is universally admired by all who have seen it, and witnessed its performance; and I feel no hesitation in saying, that I believe it to be the best, the very best breech-loading arm in the world; because no breech-loading arm can be as good, without embracing the principles which are involved in its construction.

Its theory is fully borne out by its practical results, and must ever be, until the laws that govern matter are changed, and the order of nature reversed.

A number of gentlemen at this place are anxious to procure each a sporting gun, and have requested me to inquire the lowest cash price at which you could furnish them.

Your obedient servant,

A. M. BALL.

DR. MAYNARD.

DIRECTIONS FOR USING THE MAYNARD RIFLE AND SHOT-GUN.

To lubricate the bullets.—Melt a small quantity of the lubricator in a saucer and fill the groove in the bullets with it. This lubricator may be procured from all who sell the rifle. It is far superior to the ordinary compounds used for the same purpose.

To charge the rifle cartridges.—For the 0.5 calibre, put 40 grains of U. S. musket powder in each cartridge; put a bullet, point foremost, into the loader; then put the open end of a cartridge into the loader; let the other end of the cartridge rest fairly on a table, and, with a slight blow of the hand upon the end of the loader, drive the loader down on the cartridge until it touches the flange; pull out the cartridge, rub a little of the lubricator into the vent, (not forcing it through,) wipe off the cartridges neatly, and they are then ready for use, and will bear any exposure. The inside of the loader should be kept clean. For the 0.35 calibre, put 30 grains of U. S. musket powder in each cartridge.

To charge the shot cartridges.—Charge them just as you would charge a muzzle-loading barrel. The stopper holds the proper charge of powder—about 50 grains for the 0.55 calibre. The shot should leave just room for the top wad. The wooden loader takes the place of the old ramrod. To be ready for any kind of game, it is well to keep a supply of cartridges containing different sizes of shot—the sizes to be marked on the top wads. It has been found advantageous to have a few shot cartridges loaded with round bullets instead of shot, for unexpected chances at large game.

To adjust the joint between the end of the barrel and the breech-piece.—There are two screws visible on the under side of the breech-piece, forward of the lever. They are to adjust the joint to the thickness of the flange of the cartridge. To do this: First, turn the screw nearest the lever once round to the left; now, raise the but-end of the barrel, put in a cartridge, and observe as you bring the but-end down again whether the joint is too close, so as to pinch the flange, or not close enough to hold it firmly. The exact degree of tightness allows the lever to work easily, but holds the barrel perfectly firm. This degree you will find by turning the forward screw to the right or left. Having found this proper degree, turn the rear screw to the right, tightly, and the joint is adjusted.

To apply the Primer.—Lay the coil into the magazine so that the outer end of the coil shall lie in the space forward of the wheel, the first one or two charges of the primer lying between the cogs of the wheel. Percussion caps may be used if you have no primers.

To return the primer to the magazine after cocking.—Having cocked the gun, you have, by the same act, primed: but you may wish to save the primer instead of firing it. To do this: let the hammer down to half-cock. There is a button on the left side, near the hammer; turn this button *one click*. If you have turned in the right direction, you have drawn the primer back. You can then, if you choose, let the hammer quite down. By turning this button in the opposite direction, the primer may be fed out by hand, if ever necessary.

To load the rifle.—Hold the gun, *by the barrel only*, in the left hand, and so that the hand comes against the projection on the under side of the barrel: seize the end of the lever with the right hand and push it downward and forward. This raises the but-end of the barrel. Insert a loaded cartridge and push it home with the thumb: reverse the motion of the lever and it will lock itself in place. The gun is now loaded.

To reload.—Open the gun as before; with the thumb and finger (*not with the nails*) withdraw the discharged cartridge, and put in its place a loaded one; return the lever as before. The discharged cartridge may be recharged an indefinite number of times. If they are not to be fired immediately, it is well to clean them before recharging them.

To load with loose ammunition.—Open the barrel; hold the muzzle downward; drop in a bullet; put in a charge of powder; follow it with the *stopper* and shut down the barrel. The stopper holds just a proper charge of powder.

To load the shot barrel with loose ammunition.—Put the stopper, or an empty cartridge, into the barrel, and load at the muzzle. The cleaning rod will do for a ramrod. Or, hold the muzzle down, open the barrel, put in a wad, and, with the loader, carry it to the bottom of the chamber; then put in a charge of shot and another wad, using the loader to set the wad true; put in the charge of powder, and then the stopper, and close the barrel.

To detach the barrel.—Loosen the lever at its rear end and move it forward. There is a button which keeps the magazine closed; turn this button downward and forward as far as it will go; then pull it out as far as it will come; this will detach the lever from the breech-piece, so that it will come partly out of it; unhook the barrel, and the lever will pass quite out of the breech-piece.

To attach the barrel.—Reverse the operation last described.

To remove the nipple.—On the left side, opposite the nipple, is the screw which fastens it; take out this screw; put a stick of hard wood into the screw-hole; strike the stick a little, and the nipple will be driven out.

Of the back-sight.—As sportsmen differ so much in their use of sights, the back-sight is left for the owner to graduate to suit his own pleasure. To do this: measure off on level ground 1,000 yards, and drive a stake at each 100. Fix a firm rest for the rifle, and put a target at the first stake, 100 yards off, the centre of the target to be on a level with the muzzle of the rifle. A few shots on a clear, still day will enable you to determine the place for the first mark, which may be made with a pocket-knife on one corner of the piece in which the sight moves up and down. Repeat this for each additional 100 yards. If you have more than one barrel, and the barrels differ, either in calibre or length, they will each require a separate graduation for the back sight, which should be marked on other corners, to prevent mistakes.

There is a *drift* of the bullet in all rifles—toward the right or the left, according to the rifling of the barrel. This is only important at long distances. There is also a drift from wind blowing across the line of shooting, which is sometimes of great importance. In that part of the back-sight which slides up and down, there is another which slides to the right and left. Experience alone can teach the sportsman when, and which way, and how much, to move this piece, in order to counteract the drift.

It would give more satisfactory shooting if we could have a different charge of powder for each number of hundreds of yards. That charge of powder which will give the best shooting at 100 yards, will be found much too little for 1,000 yards. In arranging the charge for this rifle, a compromise has been made to simplify its use and yet insure good results at any distances at which rifles are generally used. To kill *large game* at 800 or 1,000 yards, the charge of powder for the 0.5 calibre should be increased five or ten grains. The sportsman who would take the trouble to prepare his ammunition so as to have some of the cartridges for the 0.5 calibre contain thirty-five, some forty, and some forty-five grains of powder, and mark them accordingly, and sight his rifle for them, would find his shooting much more satisfactory.

Of the shade for the front sight.—By turning the shade (which fits any barrel the company furnish) you may make the front sight as coarse or as fine as you desire for any kind of shooting. At one position of the shade, it will protect the sight from damage when the gun is leaned against a rock, or other rough substance, and in transportation.

Of the set trigger.—If your rifle has the "Maynard Set," it is to be used thus: having cocked the hammer, push the set forward as far as it will go. To *unset* the lock, pull the hammer a little back, as in cocking. Observe: if your rifle has this set, the hammer will not stop at the half-cock notch when you *let it down*. You must, therefore, hold it at that point with the thumb, if you wish to retract the primer.

To oil the lock.—There are two screws on the right side of the gun, back of the lid of the primer magazine. One of these is the axis of the hammer, the other the axis of the trigger; and both hold the side-plate. Let the hammer down, take out these screws, lift off the side-plate, and you have access to every part of the lock that needs oiling. Use clean, fresh sweet oil, applying it with a pointed stick or feather.

To dissect the rifle for a thorough cleaning.—There are four screws on the under side of the gun, behind the hole where the lever is pivoted. Take out the two farthest back, and the stock may then be drawn back so as to separate it from the breech-piece. This exposes every part of the interior so fully that all the parts may, without further instructions, be separated, cleaned, oiled and assembled by any person of sufficient intelligence to be intrusted with the care of a rifle.

Brushing, wiping, and oiling the interior of the barrel.—To prevent damage in cleaning out the barrel, there is a shield provided with each rifle to be inserted in the chamber of the barrel, and kept there during the cleansing and oiling the bore. The cleaning-rod should never be inserted at the muzzle. See that the lever does not swing around and bruise the end of the barrel when not attached to the stock. A bruise so made, may prevent the cartridge from coming out easily.

Note on the Primer.—After any considerable exposure to water or damp air, the moisture entering the end, where there is no coating, will prevent the first one or two charges from exploding. So it is better in such cases to feed out two or three primers before firing, and better still to take out the coil of priming and put a dry one in its place. The damp one will be good when dried again. Experiments now being made render it probable that the primer will be made water-proof without giving it any bad qualities, or making it too expensive.

DESCRIPTION OF THE MAYNARD ARMS NOW MADE.

No. 1.—MILITARY FINISH RIFLE, 5-10 INCH CALIBRE, 20 elongated or 35 round bullets to the pound; charge of powder, 40 grains; barrel 20 inches, (or 26 inches for \$1 50 extra); weight, 5 lbs. 14 oz. The 26-inch barrel rifle of same calibre, weighs 6½ lbs.

No. 1 A.—SPORTING FINISH, varnished stock; otherwise as above. Either of the above may be accompanied with a Snor barrel, 55-100 inch calibre; charge of powder about 50 grains, and about one oz. of shot; or with a rifle barrel of the size of No. 2, or with both extra barrels, if preferred, with lever or guard attached. The shot barrel is provided with the lever or guard, so as to fit in place of the rifle barrel, without moving a screw, and can be changed in ten seconds. The weight of the 26-inch barrel shot gun is 6½ lbs.

No. 2.—MILITARY FINISH RIFLE, 35-100 INCH CALIBRE, 46 elongated or 90 round bullets to the pound; charge of powder, 30 grains; barrel 20 inches, (or 26 inches for \$1 50 extra); weight 6 lbs. 6 oz. The 26-inch barrel rifle of same calibre, weighs 7 lbs. 1 oz.

No. 2 A.—SPORTING FINISH, varnished stock; otherwise as No. 2. Either of the above may be accompanied with extra rifle barrel of either size, or shot barrel, as No. 1.

The following appendages accompany each rifle, and are included in its cost as given below, viz: 1 pair bullet moulds, 1 loader, 1 screw-driver, 1 wiping-rod and brush, 1 stopper, 1 shield, 1 extra cone, and 25 cartridges.

And, with each shot barrel, when furnished in connection with large calibre rifle, 1 loader, 1 wad-cutter, 1 stopper, 1 shield, and 25 cartridges; and when with small calibre rifle, 1 wiping-rod and brush in addition.

